

### Assessing economic activities - an example from central business districts

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Postprint / Postprint

Zeitschriftenartikel / journal article

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#### Empfohlene Zitierung / Suggested Citation:

Chang, S.-C. (2009). Assessing economic activities - an example from central business districts. *Applied Economics*, 41(14), 1791-1797. <https://doi.org/10.1080/00036840601131680>

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# ASSESSING ECONOMIC ACTIVITIES iv AN EXAMPLE FROM CENTRAL BUSINESS DISTRICTS

Journal:	<i>Applied Economics</i>
Manuscript ID:	APE-05-0608.R1
Journal Selection:	Applied Economics
JEL Code:	R11 - Regional Economic Activity: Growth, Development, and Changes < R1 - General Regional Economics < R - Urban, Rural, and Regional Economics, R12 - Size and Spatial Distributions of Regional Economic Activity < R1 - General Regional Economics < R - Urban, Rural, and Regional Economics
Keywords:	Assessing Economic Activities, Central Business Districts

**ASSESSING ECONOMIC ACTIVITIES – AN EXAMPLE  
FROM CENTRAL BUSINESS DISTRICTS**

**ABSTRACT**

The Central Business District (CBD) is a dynamic part of the city that changes drastically over time, and responds to forces and demands for activities from within and from other countries. However, it is extremely difficult to quantify the various propositions put forward for measuring economic activities in the CBD due to the paucity of statistical data. Planning intervention thus becomes extremely difficult as other forces beyond the control or knowledge of the planner play crucial roles in determining what activities will locate in the CBD and where they will locate.

This study attempts to explore a view of how to measure and assess central business district economic activities for planning purposes. It follows a critical discussion of the nature of the CBD by pointing to empirical studies, including examples from the New York metropolitan region and the city of London. Moreover it discusses indicators could be used to measure and assess economic activities in the CBD by highlighting planning purposes covering the entire issue.

**Key Words: Assessing Economic Activities, Central Business Districts**

## A. INTRODUCTION

The CBD has been experiencing drastic changes in its physical structure and the economic activities taking places within it. The two leading cities of London and New York are quite different in the specialization of their CBD economic activities. Common features are that both have experienced considerable structural change away from manufacturing to service growth industries, and dispersal of manufacturing-space activities, along with the simultaneous concentration of financial and service activities within their borders. This process of simultaneous agglomeration and dispersal is a manifestation of the linkage of CBD economic activities to a global economy dominated by New York and London.

It is very difficult to measure or assess CBD economic activities successfully, since they are quite complicated and rely on many factors for which the important data is usually not available. Thus, planners have little chance of predicting the future as well. However, apparent characteristics are useful in directing planners measuring and assessing CBD economic activities for decision-making (Healey, 1997; Lee and Wills, 1997; Dunning, 1971, p.47).

Most available CBD literature is based on the fact that financial services are intangible, hence unproductive compared to manufacturing. As such, data on the CBD is not readily available and the reason given is the difficulty of measuring financial services, and the rapid changes characteristic of the CBD. Thus, the CBD poses a great many difficulties to planners whose knowledge of what is happening in the CBD is very limited. If planning intervention in the CBD is to be effective, then there is a need to know more about the physical distribution of activities and patterns of specialization, and also how these activities are linked.

More than a century ago the CBD was an area of multiple uses, residential,

commercial, industrial, institutional, and financial. But with the passage of time, overcrowding, the need for specialization, and obsolescence led first to a decline in residential use and later to declines in manufacturing and wholesaling (Lee and Wills, 1997; Murphy, 1971). These locational changes have been evident in most cities in the developed countries, where the CBD is now devoted to commercial banks, insurance companies, securities dealers and brokers, savings institutions, finance companies, investment companies, clearing houses, and securities exchanges (Bishop, 2003; Williams *et al.*, 2001; Robins and Terleckyj, 1960). The spatial locations of and linkages between these financial services have been and are still changing over time.

Contributing to these changes is the fact that CBD activities are heavily influenced by the opening-up of economies. National and international forces shaping both the demand for goods and services and the supply of resources, combine to determine economic activities within the CBD. The opening-up of economies determines the patterns of physical and economic changes in the CBD.

Given all these problems associated with the changing character of the CBD, planners are therefore faced with a situation in which they have to plan with scant information, but must exercise a great deal of flexibility to meet the needs of developers in the CBD. It has become apparent that the planning regulations and standards in general use for the entire city do not particularly apply to the peculiar nature of the CBD. The indicators that could be used to measure and assess economic activities in the CBD and hence assist planners in decision-making are:

- a. Land-use indicators
- b. Economic indicators
- c. Transport surveys
- d. Communication linkages
- e. Social security or human security

These are examined in Section 2 of this paper. The third section of the paper

places the indicators within the context of the city of London and the New York Metropolitan Region. This brief historical review of the two CBDs highlights the changing nature of the CBD, and some of the factors which, although not quantifiable (hence not normally considered by planners), determine locational decisions by most firms within the CBD. The role of government policy in shaping the CBD, and the conflict between market forces and planning intervention are also considered. Section 4 gives concluding remarks.

## **B. MEASURING ECONOMIC ACTIVITIES IN THE CBD**

### **a. Land-use indicators**

The main determinant of locational decisions in the CBD is land price as compared to planning intervention. Thus, information on the use of land, territorial specialization, and the interactions in space among the various activities is crucial for the planner. Unfortunately, such information is usually difficult to capture.

#### *i. Rateable values/rents*

Due to the rising demand in the CBD, the general trend has been that rateable values in the city center rise faster than those in the rest of the city. High land prices determine which users will locate where, and its only those that can afford the high costs of land remain in the CBD. This explains why the residential function of the CBD has declined rapidly and office activities have taken over. Knowledge of rateable value trends enables the planner to assess which activities should be allowed to locate given their output. Unfortunately, data on output is never available to the planner, which makes use of this indicator difficult.

#### *ii. Floor space*

Data on floor space can be captured through land-use surveys. These surveys also assist planners in keeping records on land banks, and changes in floor space

coverage trends by various activities enable planners to determine which uses are dominating which parts of the CBD. The general trend in most CBDs has been that the percentage of floor space occupied by manufacturing and wholesaling has been declining relative to that occupied by financial services. Manufacturing floor space has declined because manufacturing services require larger spaces for their operations than financial services, which explains why the CBD is characterized by skyscrapers that can accommodate as many office activities as possible. The significance of this to planning is in the regulations controlling building heights. Without extending the boundaries of the CBD the only way planners can accommodate the increasing demand for space is by increasing building heights.

Williams *et al.* (2001), O'Sullivan (2000), and Dunning and Morgan (1971, p.31) noted about the city of London that "In 1939, office accommodation accounted for 45 percent of the floor space of the city, by 1957, this had risen to 59 percent, and by 1968 to 62 percent. By contrast the floor space occupied by warehousing and industry has fallen dramatically, in both absolute and relative terms. In 1939, these activities were spread over an estimated 32 million sq. ft., or 38 percent of the total floor space in the city, and by 1968, this area had more than halved to 15.5 million sq. ft., that is, just over one fifth of the floor space".

Although land-use surveys are difficult to carry out regularly, they are also useful in assessing the amount of vacant office space as compared to occupied space. Different rates of land utilization can be observed amongst the different areas of specialization, and this reflects on demand conditions and the incidence of use zoning and the application of "change of use" controls. Innovations in technology have however helped enable planners to easily store, update, and analyze data.

### *iii. Resident population in the CBD*

Several studies have examined the population declines in metropolitan cores and

demonstrated their diminishing shares of the totals within urban regions. An analysis of the trends in population change within the CBD reflects the effect of rising land values, planning intervention in the form of redevelopment plans that have resulted in the conversion of residential areas to other uses, and lack of housing type choices in city centres (Assane & Grammy, 2003; Healey, 1997; Law *et al.*, 1988). These population changes bear on transport management, hence planners should keep track of these trends to ensure that adequate transport facilities are provided for commuters.

## **b. Economic indicators**

### *i. Employment – Working population*

The changes in employment location and distribution of employment by sector within the CBD and in relation to the rest of the city/country provide vital statistics for assessing economic activities within the CBD. Such information is normally easily accessible from Population Censuses. Absolute employment figures may show declines, but one must look at sectoral changes since cores will have some declining industries and also many growing industries.

The case study in Table 1 below shows that all the cities surveyed, except Pittsburgh, experienced losses in their core areas and all cities, except Lille and Pittsburgh again, had declining job shares in their core areas (United Nations, 2005).

It should be noted though that too much significance should not be read into differences in the rates of change between cities as this may partly reflect differences in definition. A closer look at sectoral employment changes for Baltimore highlights the fact referred to above that core areas are losing manufacturing employment but gaining service sector employment. Table 2 below, shows the situation in Baltimore for private-sector employees during the period 1982 – 2004.

Employment change data is only useful to planners if its spatial distribution is



also considered. This will reflect on the territorial specialization of the core and hence reveal the dominance of particular uses in distinct parts of the CBD. Once these clusters have been established, the planner must investigate the linkages between them in order to determine which activities gain most by being linked with one another, and so, find it most profitable to be located in particular parts of the CBD. The issue of linkages is discussed in detail below.

*ii. Productivity - value added*

Another measure of growth besides employment is value added, a dollar figure made up principally of firms' payrolls, interest payments, and profits (Hayter, 1997, Dunning and Morgan, 1971). The problem planners face in using such a measure is that it merely gives a firm's growth pattern without linking its growth to space. Although it has never been tried by most researchers on this subject, it would be useful if output per square meter could be calculated. An avenue yet to be explored is attempting to link income tax figures to firms' locations; it is possible that this could show the spatial intensity of services, thus enabling planners to know which part of the CBD are more productive. Although it is generally believed that the productivity of financial services is difficult to measure, a firm's rate of return can serve well in determining the productivity of the firm.

**c. Transport surveys**

The decentralization of population, employment, manufacturing and commercial services can be viewed as the latest episode in the interaction between transport technology and urban form dating from the onset of the Industrial Revolution (Law *et al.*, 1988). The CBD is now characterized by congestion and delays as a result of the massive inflow of people to the hub of activity. As a result, planners must devise efficient transport management systems for use in the CBD. The basic function of a transport system is moving people from suburbs to the CBD, and an insufficient and

costly transportation system raises the cost of labour. Using transport surveys and traffic counts planners can assess the demand for and supply of public and private transport, and hence efficiently manage the traffic system within the CBD.

Some governments have attempted to solve congestion problems by relocating CBDs, but this has not proven to be the solution. In fact, the result has been to spread congestion wider as firms relocate their labour-intensive activities to new centers in other sections, while their headquarters remain in the CBD. All these have serious implications for the provision of transport thus, planning intervention of this nature must take cognizance of transportation systems.

#### **d. Communication linkages**

It was mentioned above that measuring economic activities within the CBD without establishing how these activities are linked does not help planners make valuable assessments of these activities. Financial services are characterized by uncertainty, so they need to cluster in order to operate with maximum efficiency. “Uncertainty aggravates the need for fast and frequent communication, both in negotiating for transactions and in keeping abreast of developments affecting the market” (Carter & Li, 2004; Price, 1996; Robbins and Terlecky, 1960, p.33).

Communication linkages can be determined by analyzing information flows between the various firms in the CBD. Information flows can be measured according to type and associated communication channels, for example, paper flows, personal contacts involving travel, and electronic communication like the telephone and telex (Williams *et al.*, 2001, p. 86; Goddard, 1975, p.24).

A survey was done in Central London in 1970 in order to determine the pattern of information flows between various office sectors. A sample of 72 office establishments recorded details of their telephone calls and meetings with other firms with similar patterns of functional linkages, and pairs of sectors that received

information from similar types of establishments. “Information was obtained in the analysis of number of indicators on which a policy of selective decentralization could be based” (Goddard, 1975, p.28). Such data can also be used to suggest how complexes of related office activities can be established in alternative centers outside the capital through the relocation of groups with interlinked functions.

It has been argued that improvements in technology reduce the cost and delays of communicating over long distances, and it is believed that technological advancement is a threat to existing financial centers since it will promote decentralization. However, Brealey (1992) states that “the popular vision that improved communications will permit decentralization with personal contacts being replaced by video-conferencing and traders operating from home terminals is, we believe, to misunderstand the effect of improved communication” (Brealey,1992, p.32).

**e. Social security and human security**

Implications for social security and human security in the CBD, which has experienced transition from a manufacturing-based economy to a services-led economy oriented toward the global market have come to be known as the “Dual City” theory (Castells, 1989). The rise of the dual city is a result of economic restructuring fuelled by technological innovation that spurred the growth of producer services, which led in turn led to growth in the production of information technology. What impact has this had on the urban social security and human security? Castells (1989, p.203) notes that,

“...processes of sectoral growth and decline, and the reallocation of jobs and labour are taking place...in a complex pattern that combines the creation of new, highly paid jobs in advanced services (producer services) and high technology sectors, the destruction of middle level jobs in old manufacturing, the gradual shrinkage of protected jobs in the public sector, and the proliferation of new, low-paid jobs both in services and in downgraded manufacturing”.

On the spatial level the dual city is manifested in the coexistence of a large

professional and managerial middle-class and a growing urban underclass, and epitomizes the contradictory development of the new information-based economy, and the conflictual appropriation of the inner city social groups who share the same space while being worlds apart in terms of lifestyle and structural position within the city (Castells, 1989)

Developments in the casualisation of employment, as in the cases of London and New York, point to the institutionalization of casual labour markets. In New York, the informal economy has the overall effect of cheapening production costs for firms, while also increasing the flexibility of the production organization. The presence of many “informal” business (especially, traditional sweatshop garment production) activities in densely populated areas with high immigrant populations also substantially reduces the costs of reproduction for inner city workers. In London, the casualisation of employment has resulted in the privatization of services once provided by the state. Jobs that were once full-time with a full array of benefits have been transformed into part-time subcontracted work at lower wages.

However there was a substantial increase in job creation in general in the inner areas of global cities, particularly during the 1980s (Carter & Li , 2004; Castells, 1989). Interestingly, in New York and London, the increasing employment rate continues to grow despite the influx of hundreds of thousands of immigrants into these rapidly growing economies. With growth occurring in the formal as well as informal segments of the economy, there follows a highly differentiated social structure, both polarized and fragmented, with segments divided on the basis of class, gender, race, and national origin (Sassen, 1993). Fingleton (2005), Li (1996) and Sassen (1993) suggest that in both cities, apart from migrations that may have taken place in these cities, what we observed in recent times is a process that requires specific conditions: the internationalization of the economies of these countries,

particularly centered in the major cities, and the casualisation of the employment relation.

Therefore, restructuring is often a painful process that may result in whole sections of the old work force becoming redundant as in the case of middle-level manufacturing workers in the UK. The swing to producer services has made up for these losses in economies in more stable developed countries. However, cities like Bombay, which has massive potential, and Indian cities in general face a far more serious problem in that their political conditions are far less stable, and the problems created by the liberalising of the economy of the CBD in the short term may well cause serious social disturbances and threaten the power of the Indian government.

**C. THE CHANGING NATURE OF THE CBD, NEW YORK METROPOLITAN REGION AND THE CITY OF LONDON**

**a. The New York Metropolitan Region**

The New York Metropolitan Region, whose locational advantage was originally its natural harbour, is now the financial center not only of the United States, but of the rest of the world. Initially, it had an enormous amount of rentable space, an amazingly varied supply of industrial materials and services, an extremely diversified labour force, and extensive transportation facilities (Hayter, 1997; Vernon, 1972). By the early 1970s these advantages no longer applied, as the region was beginning to specialize in services including commercial banks, insurance companies, securities dealers and brokers, savings institutions, finance companies, investment companies, clearing houses and securities exchanges (Robins and Terleckyj, 1960). By 2000, finance and insurance employed 460,000 people and accounted directly for 11 percent of employment (Knox *et al*, 2003).

The main reasons given for financial activities concentrating in the CBD have

been the presence of external factors which, among others, include:

- i. access to trained labour                      ii. range of supporting services
- iii. the value of face-to-face contact    iv. the centre's reputation
- v. low search costs

The combination of these holds firms in the financial district as long as there are no strong reasons for them to go elsewhere. The pressure to move out of the region has meant the rapid economic growth of other areas. "Over time, factors such as nearness to customers, the cost of office space, the cost of labour, and the supply of manpower can be expected to bear increasingly upon locational decisions" (Hayter, 1997, p.30; Robins and Terleckyj, 1960, p.45).

## **b. City of London**

Up to the end of the 19<sup>th</sup> Century the City of London did not have complete specialization. The city started to witness a shift from manufacturing to financial services by the beginning of the 20<sup>th</sup> Century. Over the years the city has not only become specialized in the services it provides but also in the functions supplied by its firms. The city developed into an international financial center for more or less the same reasons given for the New York Metropolitan Region.

### *The Impact of Government Policy on City Development*

There have been central government controls on office development in the City since 1964, yet few objective criteria have been formulated to assess the appropriateness of one type of office activity over another in central locations. "The Greater London Development Plan has declared "the opportunity to develop" as a key objective (Lee and Wills, 1997; GLC, 1988; GLC, 1985), but whether it recognizes a need for selective appropriateness in the center has yet to be assessed" (Goddard, 1975, p.23).

As a result Dunning (1971) notes, although the influence of local and central government policy on the pace and pattern of development has been increasing, it has been restraining development by merely concerning itself with safeguarding buildings and accommodation standards without considering the market forces in play. A Redevelopment Plan produced after the First World War, had as its main objective, maintaining a good balance between the amount of accommodation space and the amount of circulation space in the city. Thus, emphasis was on controlling the growth of the city.

The 1943 Abercrombie Plan proposed the dispersal of a million people from Greater London. The idea was to reduce residential floor space and increase office floor space. Although this was a step in the right direction in terms of promoting economic activities in the CBD, the issuing of Industrial Development Certificates at the Central Government level for firms wishing to develop 5000 sq. ft. or more was a drawback for most firms. Again, the issuing of Office Development Permits (ODP), which was aimed at reducing congestion and employment in the City of London, had shortcomings as well. The policy initially took too much stock of vacant open space and hence refused any applications for new developments, and took too little stock of increases in demand. As a result, demand eventually overtook supply. Planners were then compelled to exercise flexibility in order to cope with the rising demand for office space in the city. As Dunning puts it, “Even though they know more than the market about the best distribution of land use in the city. Indeed, we strongly suspect the ODPs have introduced an element of rigidity into the market in that supply has not been allowed to adjust itself to demand in the way that would best utilize scarce resources”(Dunning and Morgan, 1971, p.227).

Operating hand in hand with the ODPs, were the Location of Office Bureau (1963), which encouraged decentralization of office activity from Central London.

After all this effort to decentralize office activity from the CBD, it was realized that a majority of firms still found the advantages of locating in Central London outweighed the extra labour costs and rents, and the advantages of decentralizing.

#### D. CONCLUSION

The CBD is a dynamic part of the city that changes drastically over time, and responds to forces and demands for activities from within and from other countries. The globalization of economies has meant that the city no longer serves only the interests of its inhabitants, it also serves other international business interests. The CBD has changed from accommodating activities like manufacturing to being predominantly a services area.

It is extremely difficult to quantify the various propositions for measuring economic activities in the CBD put forward in this study due to the paucity of statistical data as well as the constraint of trying to assess economic activities that reside in the uncertainty surrounding financial services. Planning intervention thus becomes extremely difficult as other forces beyond the control or knowledge of the planner play crucial roles in determining what activities will locate in the CBD and where exactly they will locate.

Land-use regulations are also crude and do not allow planners to see the activities' micro-disaggregated interactions. This makes it difficult for planners to use such regulations in assessing and planning for the CBD. Planners have had to introduce certain criteria in assessing applications planned for the CBD such as use of the Special Consent Criteria and Change of Use Regulations, which allow certain buildings or activities that would not normally be allowed by existing use zones and plans, to be considered. Restrictions on building heights and coverages have had to be adjusted to suit the increasing demand for space in the CBD. Planning within the



CBD must be more innovative and accommodating if it is to meet the needs of the business community.

**Table 1: Employment Change in Metropolitan Cores**

	Employment (000)				Change%	Share Of Area		%	
Baltimore	1990	436	2003	401	-8.0	1990	36.7	2003	32.8
Pittsburgh	1990	361	2003	372	+3.0	1990	42.8	2003	48.9
Birmingham	1990	381	2003	306	-19.7	1990	30.9	2003	28.6
Glasgow	1990	354	2003	356	-13.0	1990	54.2	2003	50.7
Manchester	1990	274	2003	220	-19.7	1990	24.8	2003	24.9
Lille	1990	51	2003	46	-29.4	1990	36.8	2003	39.4
Lyon	1990	236	2003	218	-5.9	1990	57.3	2003	57.7

Source: Adapted from United Nations (2005) and Law *et al*, (1988, p.20).

**Table 2: Baltimore: Private Sector Employment in the Central City  
1982-2004**

	1982	1992	2004	Change (%)
Total	285,460	312,138	320,377	-21.7
Manufacturing	59,691	44,982	28,142	-52.3
Transport	30,093	26,419	18,994	-36.9
Wholesale	19,292	17,149	12,194	-36.8
Retail	44,279	33,498	25,014	-43.5
Fire*	31,528	30,097	34,989	+11
Services	92,201	108,341	132,572	+43.8
Health	35,469	48,652	68,472	+93

Note: \*Finance, Insurance and real Estate

Source: Adapted from United Nations (2005) and Law *et al* (1988, p.121)

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